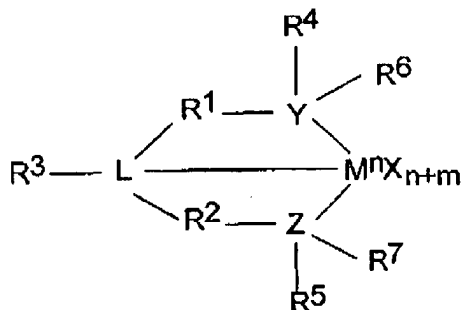


Application No.: 10/777,562  
 Response dated: January 30, 2009  
 Reply to Office Action November 4, 2008

### In the Claims

1. (Currently Amended) A process for polymerizing olefin(s) comprising combining said olefin(s) in the presence of a catalyst system comprising a Group 15 containing [bidentate or] tridentate ligated hafnium catalyst compound, wherein the hafnium metal atom is bound to at least one leaving group and to [at least two] three Group 15 atoms, and wherein [at least one of the at least] two of the Group 15 atoms [is bound to a Group 15 or 16 atom] are each bound to the third Group 15 atom through a bridging group; and a bulky ligand metallocene catalyst compound, wherein the bulky ligand metallocene compound and the Group 15 containing tridentate ligated hafnium catalyst compound are added to a polymerization reactor in one of a slurry, a solution, an emulsion, a dispersion or a suspension, and wherein the Group 15 containing tridentate ligated hafnium catalyst compound is represented by the formula:



Formula (I)

wherein M is hafnium;

each X is independently a leaving group;

n is the oxidation state of M;

m is the formal charge of the Y, Z and L ligand;

L is a Group 15 element;

Application No.: 10/777,562  
Response dated: January 30, 2009  
Reply to Office Action November 4, 2008

Y is a Group 15 element;

Z is a Group 15 element;

R<sup>1</sup> and R<sup>2</sup> are independently a linear, branched, or cyclic C<sub>2</sub> to C<sub>20</sub> alkylene group;

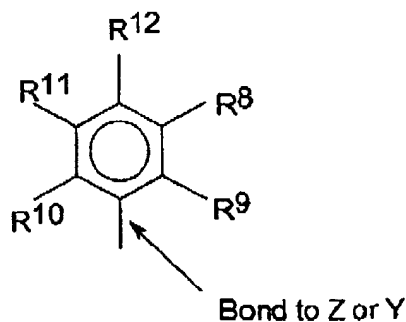
R<sup>3</sup> is a hydrocarbon group, hydrogen, a halogen, or a heteroatom containing group;

R<sup>4</sup> and R<sup>5</sup> are independently an alkyl group, an aryl group, substituted aryl group, a cyclic alkyl group, a substituted cyclic alkyl group, a cyclic arylalkyl group, a substituted cyclic arylalkyl group or multiple ring system;

R<sup>1</sup> and R<sup>2</sup> may be interconnected to each other, and/or R<sup>4</sup> and R<sup>5</sup> may be interconnected to each other; and

R<sup>6</sup> and R<sup>7</sup> are independently absent, or hydrogen, an alkyl group, halogen, heteroatom or a hydrocarbonyl group.

2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Currently amended) The process of [claim 4] Claim 1, wherein R<sup>4</sup> and R<sup>5</sup> are represented by the formula:



Application No.: 10/777,562  
Response dated: January 30, 2009  
Reply to Office Action November 4, 2008

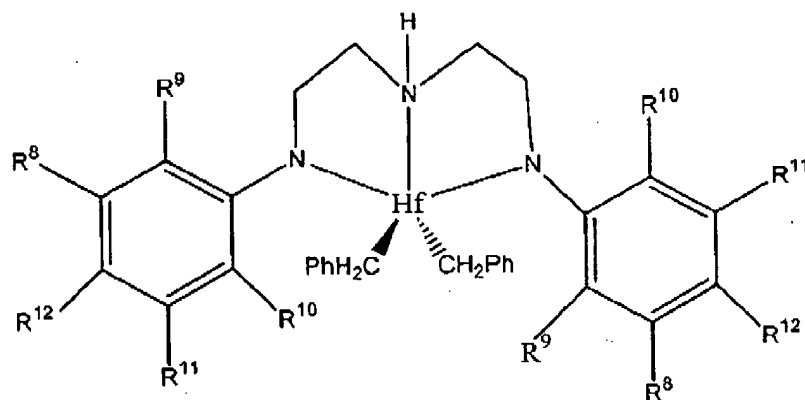
wherein  $R^8$  to  $R^{12}$  are each independently hydrogen, a  $C_1$  to  $C_{40}$  alkyl group, a halide, a heteroatom, a heteroatom containing group containing up to 40 carbon atoms, wherein any two R groups may form a cyclic group and/or a heterocyclic group and wherein the cyclic groups may be aromatic.

6. (Currently Amended) The process of claim 5 wherein  $R^8$  to  $R^{12}$  [ $R^9$ ,  $R^{10}$  and  $R^{12}$ ] are independently a methyl, ethyl, propyl or butyl group.
7. (Currently Amended) The process of claim 5 wherein  $R^8$  to  $R^{12}$  [ $R^9$ ,  $R^{10}$  and  $R^{12}$ ] are methyl groups[, and  $R^8$  and  $R^{11}$  are hydrogen].
8. (Currently Amended) The process [of claim 4] of Claim 1, wherein L, Y, and Z are nitrogen,  $R^1$  and  $R^2$  are a  $C_2$  to  $C_6$  hydrocarbon radical,  $R^3$  is hydrogen, and  $R^6$  and  $R^7$  are absent.
9. (Cancelled)
10. (Original) The process of claim 1 wherein the catalyst system is supported on a carrier.
11. (Original) The process of claim 1 wherein the process is a continuous gas phase process.
12. (Original) The process of claim 1 wherein the process is a continuous slurry phase process.
13. (Original) The process of claim 1 wherein the olefin(s) is ethylene.
14. (Original) The process of claim 1 wherein the olefins are ethylene and at least one other monomer having from 3 to 20 carbon atoms.
15. (Original) The process of claim 1 wherein the catalyst system further comprises an activator.

Application No.: 10/777,562  
Response dated: January 30, 2009  
Reply to Office Action November 4, 2008

16. - 45. (Cancelled)

46. (New) The process of Claim 1, wherein the Group 15 containing tridentate ligated hafnium catalyst compound is represented by the formula:



wherein  $R^8$  to  $R^{12}$  are each independently a methyl, ethyl, propyl, or butyl group.